



Aristotle on Sameness and Oneness

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ARISTOTLE ON SAMENESS AND ONENESS

I AM HERE going to advance a number of hypotheses about Aristotle's treatment of identity (or, better, sameness, since we shall see that his word "same"—*ταὐτόν*—cannot by any means uniformly be translated by the word "identical"), both in the *Topics* and in other works. In general, though not always, I shall be contrasting the *Topics* with those other works, primarily the *Physics* and certain parts of the *Metaphysics*. I should emphasize at the start, though, that I shall not give much attention to the central books of the *Metaphysics*, such as IV and VI through IX, which I take to be late productions, and shall make only scattered use of Book X (also late). I shall start by discussing some bits of the *Topics* which seem to me to show a relatively firm grasp of something like the notion of identity. I shall then start to show difficulties arising, particularly in other works, and signs that his grasp is weakening. I shall then try to explain why the weakening occurs, partly by means of some Platonic background. There will be quite a few loose ends and many points which could be argued in much greater detail. I have thought it useful, however, by treating together a number of features of Platonic and Aristotelian doctrine which are usually handled separately, to give a general picture on which refinements might later be made. One point deserves special mention. I generally assume that the *Topics* (including the *Sophistici Elenchi*—hereafter *SE*) are almost entirely early productions of Aristotle, earlier than almost all of the other works of his which I shall treat, and my language in this paper reflects a tendency to think of differences between the *Topics* and other works as signs of development in Aristotle's thought. The argument of this paper, however, does not depend on this chronology since, as the reader will see, differences which might be tied to development can equally well be explained by the contrast between the concerns and issues raised in the several works. The point is important because the *Categories*, which I think *may* be even earlier than the *Topics*, shows affinity on the issues here treated with works other than it.

Before I begin, let me get one substantial issue out of the way. Recently certain views which are in many ways similar to Aristotle's have been expounded in connection with the idea that there is something wrong with the words "same" and "identical" used by themselves, and that we should instead make use of expressions of the form "same *F*," where "*F*" represents a general term.¹ Aristotle, so far as I can find, never says any such thing, and although he does say a number of things which would seem to suggest, even perhaps to imply, such a view, and although he maintains that the word "same" carries many senses, he does not offer to resolve its ambiguity by coupling it with general terms. Indeed, he almost never uses "same" in this way,² and only rarely thus uses his word for "one," *εἷς*.³ I shall accordingly be doing without such couplings in what is to follow.

I

Any discussion of Aristotle's treatment of the notion of identity ought to begin with the *Topics*, because it is there that we get what are to most modern ears his plainest remarks on the subject. Look first at the first chapter of Book VII, where he is writing about that sense of "same" (*ταὐτόν*) in which it means "one in number" (*τὸ τῷ ἀριθμῷ εἷς*; 151b29-30; cf. 103a8, 23 ff.). At 152a31-32, he announces the principle that if *A* is the same as *B* but *C* is not, then *A* is not the same as *C*. In the next few lines (33-37), he tells us that if *A* and *B* are the same, then any accident of *A* is an accident of *B* and vice versa. This latter is a restricted version, dealing only with accidents, of what is nowadays often called Leibniz' Law (*LL*),⁴ which can here be loosely expressed by saying that if *A* and *B* are identical, then whatever is true of the

¹ See, e.g., Peter Thomas Geach, *Reference and Generality* (Ithaca, 1962), esp. pp. 144 ff.; and David Wiggins, *Identity and Spatio-Temporal Continuity* (Oxford, 1967). Geach and Wiggins do not, however, have the same reasons for holding this view (see Wiggins, pp. 1-2, 27).

² I find an exception only at *Met.* 1016a32, and possibly another one at 1016a31.

³ See 1016a31, b3-6, 1003b26-28, and 1054a17.

⁴ Whether correctly or not does not matter here.

one is true of the other.⁵ At 133a32-34 he had already given another restricted version, under which, if *A* and *B* are the same, then whatever is a “property” (*proprium*, ἰδιον) of the one is a “property” of the other. At 152b25-29, however, he widens the principle so as to take in any predicate at all, not just accidents or properties.

In precipitously giving his unrestricted version of *LL*, Aristotle fails to take precautions against contexts in which, as Quine puts it, extensionality fails,⁶ and runs the risk of encountering paradoxes. This he does, not in the *Topics* proper, but in the *Sophistici Elenchi*, c. 24. At 179b1-4, he deals with the difficulty that one might know and not know the same thing; for example, it might be the case that I know Coriscus, that I do not know the hooded man over there, and yet that the hooded man over there is Coriscus.⁷

As Aristotle sees it, the problem is that one and the same thing would seem both to have and to lack the attribute of being known by me. For this reason, he gives in and puts a new sort of restriction on *LL*. He retreats from saying without qualification that if *A* and *B* are the same, then whatever is true of the one is true of the other. Rather, he maintains (to use his manner of putting it) that the same things belong only to things which are without difference and one *in substance* (τοῖς κατὰ τὴν οὐσίαν ἀδιαφόροις καὶ ἐν οὐσίᾳ). This contention clearly retracts some of what has been said at 152b25-29, 152a33-37 (and an apparent application of the former at 133b31 ff.). The new restriction has in fact already been adumbrated at 166b31-32 and 169b3-6, and we find it again in his writings at *Physics* 212b14-16,⁸ where he says, “It is not the case that all the same things belong to things which are the same in

⁵ As I am here using the label, what is being called “Leibniz’ Law” is not to be confused with its converse, sometimes called the “Principle of the Identity of Indiscernibles,” or with the biconditional equivalent to the conjunction of the two.

⁶ See W.V. Quine, *Word and Object* (New York, 1960), p. 151, and secs. 30 ff.

⁷ Aristotle classes this puzzle together with some others which seem quite dissimilar. I shall not comment on them here, except to note that a like conflation occurs at *De Interpretatione* 11, esp. 20b35-36.

⁸ This for anyone who has doubts about the authenticity of the *SE*, in whole or in part.

just any old way, but only to those things whose being ($\tau\omicron\delta\ \epsilon\acute{\iota}\nu\alpha\iota$) is the same.”⁹

Here he is worried, not about failure of substitutivity of identity like the one in the *SE*, but about the problem concerning the road from Athens to Thebes and the road from Thebes to Athens: they are in a way the same, he believes, but one is uphill and the other is downhill (cf. 202a18-20). Nevertheless, the restriction which he places on *LL* is clearly the same as that of the *SE*.¹⁰

In spite of the difference between the puzzles raised respectively in the *SE* and the *Physics*, one might hope that at least the former would show Aristotle working in a quite up-to-date way on problems arising from the enclosing of sentences in so-called opaque contexts (cf. Quine, *loc. cit.*). For one might be tempted to say that the problem about Coriscus and the hooded man is generated by the fact that even if I know that Coriscus is Coriscus, and it is the case that the hooded man is Coriscus, it does not follow that I know that the hooded man is Coriscus.¹¹

Nevertheless, this is not the way in which Aristotle puts the matter. He here uses “Coriscus” and “the hooded man” only as (grammatically) direct objects of the verb “to know” and does not follow it by expressions of sentential form. In 179b27-33, where he summarizes an alternative approach to the puzzle (introduced at 179b7), we might at first think that we are being shown sentences within a “knows that” context, but more likely Aristotle is using the Greek construction which is to be rendered word by word into English by the form “. . . knows *X*, that it is *Y*.” He never explicitly contrasts this sort of construction with one in which a full sentence appears in a “knows that” context, and there is no reason to believe that he saw this distinction with any

⁹ The Loeb translation of Wicksteed and Cornford renders this sentence incorrectly; the Oxford version, by Hardie and Gaye, is only a little off the mark.

¹⁰ There is no need here to go into the problem allegedly raised by the Athens-Thebes road, or the issue in connection with which Aristotle raises it in the *Physics*.

¹¹ This is not to say that this temptation is correct, or that this is the way in which we ought to explain such locutions as “knows Coriscus.” I leave this matter aside.

clarity.¹² A byproduct of this neglect is that he would be crippled in any attempt to make a distinction between what Russell once called “primary” and “secondary” occurrences of singular terms.¹³ Likewise, it is just about impossible for him to say anything extensive about problems of substitutivity of identity in modal or other opaque contexts, simply because he is unlikely to be able to express clearly just what the relevant contexts are in particular cases and what falls within them. Moreover, since he rejects the solution of 179b7-33, in which we get our only explicit hint of whole sentences in opaque contexts, we should expect to find him saying relatively little about them. The expectation is confirmed by other parts of the *Topics* and by other works as well.¹⁴

Some doubt that *LL* is true. I shall not argue the question, but it seems obvious to me that it is true, and that anyone who wants to deny it had better come up with a clear alternative account of how he is using the word “identical.”¹⁵

I am going to begin from this standpoint and ask what notion of sameness Aristotle can have in mind if it is not backed up by *LL*, and whether it can be anything like the notion of identity as so backed up. Now the problem is not merely that Aristotle offers us uses of “same” for which he says that *LL* does not hold. It is also, first, that although *LL* is allowed to hold for sameness in substance or being, Aristotle betrays in the passages we have seen no belief that this law is central to the explanation of even this sort of sameness. So far as I can discover, the passages which I have mentioned are the only ones in which any version of the law appears in his works. Moreover, it notably fails to figure in other places where he announces a treatment of the word “same,” such as *Metaphysics* V,9 and various passages of *Metaphysics* X.

¹² For some background on a related matter see, e.g., Montgomery Furth, “Elements of Eleatic Ontology,” *Journal of the History of Philosophy*, VI (1968), 113-114.

¹³ See “On Denoting,” *Mind*, 14 (1905), 489 ff., or *Logic and Knowledge*, ed. by Robert C. Marsh (London, 1956), pp. 52 ff.

¹⁴ It is to be noted in passing that the alternative solution of 179b7-33 is rejected not because it is straightforwardly wrong, but because it is held not to be applicable to other problems which Aristotle thinks (though we generally would not; cf. n. 7) are to be classed with this one.

¹⁵ In this vein see Wiggins, *op. cit.*, pp. 5, 16 ff.

It fails to appear, furthermore, outside of the *Topics* and the *SE*, except for the one passage from the *Physics* which I have cited. This distribution of allusions to *LL* raises another question: why does Aristotle in other works, in particular the *Metaphysics*, lose the at least mild interest which *LL* held for him in the *Topics*? We now have enough to motivate us to try to investigate Aristotle's account of the word "same."

II

First, though, I shall try to raise some other suspicions, which will be useful later, concerning Aristotle's grasp of identity as it figures in Leibniz' Law. In his treatment of "same" in *Topics* I, 7, he contends that it has three main uses: "same in number," "same in species," and "same in genus." Now even though he represents these three senses as being all on a par, it is clear that the latter two are importantly different from the first, in that they seem to represent kinds of (broadly speaking) similarity,¹⁶ whereas the first does not. In these two senses, if *A* and *B* are "the same," then they may be non-identical.¹⁷

What makes them the same in species or genus is simply that *they* fall under the same species or genus—that is (roughly), they share an attribute which attaches to them in a certain way. Even if we suppose for the moment that Aristotle's "same in number" (here divided into three subsenses; elsewhere "same in number" gets a quite different treatment) represents something like identity, it is noteworthy that Aristotle does not mark it off from "same in species" and "same in genus" as being of a quite different type. The fact that he does not so mark it off might lead one to suspect that he does not have plainly in view a distinction between similarity and identity.

¹⁶ I use "similarity" here where someone might prefer "similarity in some respect or other." I say this with my eye on those who might claim that one kind of similarity is not to be distinguished from identity—namely, similarity in all respects. Note that to make this claim is to say more than one who simply asserts *LL*, in my use of that label.

¹⁷ It is even suggested at 103a10 (πλείω ὄντα) that they *must* be non-identical (cf. also 152b32). The motivation for this view might be that it seems somehow pointless to say, e.g., that Socrates is the same in species or genus as himself. A different line is taken by Aristotle at *Met.* 1016b35-36.

Of course, Aristotle does have a word, *ὅμοιον*, which is usually translated "similar." He uses *ὁμοιότης* here in his explanation of "same in species" when he says (103a19-23), "all water is said to be the same as all other water because of bearing a certain similarity; and the only difference in the case of water from the same spring is that the similarity is stronger," and he uses this claim to support the view that sameness of two samples of water from one spring really is a case of specific sameness. Elsewhere, however, he takes greater pains to distinguish *ὁμοιότης* and *ταυτότης*. In *Metaphysics* V,9, the former gets separate, though cursory, treatment (1018a15-19), as it does also at *Metaphysics* X, 1054b3-14,¹⁸ and the idea which is emphasized is that *A* and *B* are properly said to be "similar" by virtue of their sharing accidental attributes or *πάθη*, not by sharing substance attributes.¹⁹ We would, I think, prefer to contrast more emphatically than Aristotle does the relation between *A* and *B* which consists in their sharing some attribute or attributes, of *whatever* kind, and identity. The contrast which we have so far seen highlighted is one between (as I am putting it) different kinds of similarity or resemblance, depending on the way in which the shared attributes attach to their subjects.

It may look as though we should say that Aristotle has not clearly distinguished between resemblance and identity, but this would be somewhat unfair. The notion which he expresses in the *Topics* by "same in number" is surely something like identity, and the same appears to be true at *Metaphysics* X,3, 1054a34-35. Still it cannot be identity of the sort which figures in the restricted *LL* of *SE* 24; for one of the kinds of numerical sameness which he allows is accidental sameness (*Top.* 103a29 ff.), which is not sameness in being or in substance, and hence is not covered by that law. Furthermore, he is quite happy explicitly to count as distinct in definition (*λόγος*) or in being (*εἶναι*) things which are

¹⁸ In the latter, however, *ὅμοιον* is said to apply in one of its uses to things which, while not the same in their "compound substance" (there is no need here to go into the meaning of this phrase), are the same in species.

¹⁹ *Met.* 1018a15-19, 1054b9-14, 1021a11-12; cf. for background Plato, *Parmenides* 139e and 140a-b. Note too *Cat.* 11a15-19, where *ὁμοιότης* is restricted to things sharing attributes in the category of quality.

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accidentally the same (e.g., *Phys.* 190a14-17, 262a21, 263b13-14; *De Gen. et Corr.* 320b13 ff.; *De An.* 427a3-5).

I shall now try to give an account, which will necessarily be somewhat roundabout, of Aristotle's use of the word "same." We have seen that his grip on the Leibniz-like notion of identity was already somewhat weak in the *Topics*, but I shall now try to show how and why his attention there to *LL* and restrictions of it flags in other works. This project will require a discussion of his notion of oneness, its connection with his notion of sameness, and of Plato's treatment of these matters.

III

Aside from its use, however cursory, of *LL* and similar principles, the *Topics* is unusual among Aristotle's works in giving any prominence at all to the notion of sameness and the expression "same." *Topics* I,7 is officially about it, as are VII, 1-2 and a stretch of V, 4 (esp. 133b15 ff.). In other works, however, the word "one" receives greater attention, and "same" gets dragged in by the way, as in *Metaphysics* V,6 and 9, and X. Still, both in the *Topics* and in other works, there is a strong tendency to explain (though not officially to *define* in Aristotle's technical sense) the word "same" in its various uses in terms of the word "one" in its. See, for example, in the *Topics* 103a9-10, 24, 31, 151b30, 152a11, 27, 179a38; in *Metaphysics* X, such places as 1054a34, b1, 22; and in *Metaphysics* V, 1018a4-7, and the straightforward claim of 1018a7-8 that "sameness is a kind of oneness" (the rest of what he says here will be discussed later). We are going to have to take a look, therefore, at what Aristotle has to say about the word "one." This enterprise takes us away from the *Topics*, where—as far as I can find—there is no extended passage devoted to the word, and into other works.

Let us start with *Metaphysics* V,6. Aristotle does not mark the contrast, but it is initially tempting to say that among the uses of "one" which he sets forth, we can distinguish between a one-place use and a two-(or more-) place use. That is, we may either say something of the form "*X* and *Y* (and *Z*, etc.) are one" or "*X* is one with *Y*" (where the word represented by *Y* is in the dative case), or else something of the form "*X* is one." What Aristotle calls the

“accidental” sense of “one” at first appears to be of the former type, as do the types given at 1016a17-24 (one in having a substratum undifferentiated in form [*eidōs*]; τῷ τὸ ὑποκείμενον τῷ εἶδει εἶναι ἀδιάφορον), 24-32 (being of the same genus but having opposed differentiae; ὡν τὸ γένος ἐν διαφέρον ταῖς ἀντικειμέναις διαφοραῖς), 32b1 (one in λόγος—e.g., τὸ ἡυξημένον and τὸ φθίνον). The latter type is exemplified in most of 1015b34-1016a17, on various kinds of oneness by continuity. The word “same,” on the other hand, has no one-place use, and although in c. 9 Aristotle says that it has as many *per se* uses as “one” (1018a5—there seems no reasonable alternative to Jaeger’s conjecture “ὁσαχῶσπερ”), he gives us no one-place use of the word corresponding to “one by continuity” in c. 6. It appears that Aristotle may be having trouble linking up “same” and “one” in the way he wants to.

I said that Aristotle does not in c. 6 explicitly recognize the distinction between one- and many-place uses of the word “one,” and when we look more closely we see that it is not very sharp at all in his examples. For one thing, the accidental use of “one” does not uniformly provide us with obvious two-place uses, since at 1015b18 we are allowed to say that musical Coriscus is (accidentally) one, which is claimed to be the same as saying that Coriscus and the musical are one. (Aristotle is not here talking about the case where we say that musical Coriscus is one with Coriscus or with the musical; this sort of case is taken up further on, in ll. 23 ff.) Nor do we consistently get two-place uses out of the sense “one in having a substratum undifferentiated in form” (1016a17-24): here we are allowed to say that wine is one, as well as that all liquids, such as wine and oil, *are* one. Our initial attempt to find this syntactic distinction begins to falter. Keep in mind that “same” is still resolutely two-placed.

I am now going to try to explain why Aristotle does not draw a contrast between one- and two-place uses of “one,” and to show how my explanation affects the prospects for finding him using the word to express identity. I shall then try to show how his use of the word “same” to express the same notion is affected by his treatment of “one.” Afterward, I shall return to his use of Leibniz’ Law and related principles in the *Topics*, and say

something about the Platonic background of his treatment of oneness and sameness.

Notice first the way in which the accidental sense of “one” is set forth in *Metaphysics* V,6, 1015b16-34. As I have said, Aristotle allows us to say things of the form “*X* is one with *Y*,” where the word in place of *Y* stands in the dative case (1015b24, 26-27), and we seem to have some kind of sameness here (perhaps the same object under different descriptions or the like—it does not matter much). But there are also sentences of the form “*X* and *Y* are one” (e.g., 17-18, 19-20), and it is upon these that I want to focus, since my hypothesis is that Aristotle is led into serious difficulties largely, though not exclusively, by an ambiguity of such sentences. One may take “*X* and *Y* are one” either to mean that *X* is somehow identical with *Y*, that they are the same thing of a sort, or else to mean that they *together make up* one thing (of a sort) which has them as its constituents.²⁰ It is a commonplace that Greek philosophers were prone to say that a white musical man, say, can be somehow logically divided up into three parts, the white part, the musical part, and the man part,²¹ and Aristotle himself is willing to put the matter in just this way in various places. See, for example, *De Interpretatione* 11, 20b17-19; *Topics* 133b17-19, 31-33; and *Physics* I,7, 190a20-21 (τὸ ἐξ ἀμφοῖν—sc. τοῦ ἀμύσου and τοῦ ἀνθρώπου—συνγείμενον, οἶον ὁ ἄμουσος ἄνθρωπος), b20-22 (συνκεῖται γὰρ ὁ μουσικὸς ἄνθρωπος ἐξ ἀνθρώπου καὶ μουσικοῦ τρόπον τινα. διαλυσεῖς γὰρ εἰς τοὺς λόγους τοὺς ἐκείνων). (See also the use of “σύνθετον” and “πρόσθεσις” in *Met.* VII,4, though I think that the ideas of *Met.* VII differ importantly from those of the works which I am primarily discussing.) Moreover, the same idea comes through in *Metaphysics* V,6, where we are told that, for example, the musical and Coriscus are one because the former is an accident of the latter, or the musical and the just are one because they are both accidents of the same thing, Coriscus. Their being one

²⁰ One might see a similar ambiguity, for that matter, in English sentences of the form “*X* and *Y* constitute a single thing,” since one might say either that the left and right halves of the Eiffel Tower constitute a single thing (tower), or that Cicero and Tully constitute a single thing (man)—at least I *think* that this latter way of talking is acceptable in ordinary English.

²¹ See the remarks of Furth, *op. cit.*, p. 124.

consists in their being in some way (by the connection, accidentally belonging) bound together. Furthermore, as 1015b18-19 takes pains to assert, we can speak not only of *X* and *Y*'s being one; we can in this case also speak of *XY*'s being one (ταὐτὸ γὰρ εἶπεῖν Κορίσκος καὶ τὸ μουσικὸν καὶ Κορίσκος μουσικός), and its being one (accidentally) consists in its parts being bound together in a certain way. The same is true of the apparently quite different (per se) sort of oneness which Aristotle takes up next, oneness by continuity: a thing is one in this sense by having its spatial or material parts bound together in one of a number of ways (e.g., by glue). On the other hand it is clear that in saying that *X* and *Y* are one, Aristotle does not *simply* mean that they are parts of the same compound entity; he *also* means to say that they are in *some* sense the same, *as each other*. For in writing of accidental sameness in *Metaphysics* V,9, 1017b27-1018a4, he gives exactly the same explanation of "*X* and *Y* are accidentally the same" (or "*X* is accidentally the same as *Y*"—"as *Y*" again representing a dative) which he gave in c. 6 for "*X* and *Y* are accidentally one."²²

There are some signs, then, that Aristotle is not keeping separate the use of "*X* and *Y* are one" to mean that they are in some way identical from its use to say that they make up a unitary entity. The test of this claim, however, is in how much it can explain, so I want to try to put it to work. In the first place, it explains why he does not explicitly distinguish the one-place and two-place uses of "one": there are cases where one- and two-place uses seem interchangeable. (On the other hand, however, one might well prefer to use the existence of this sort of case to explain the confusion which I am hypothesizing.) It can also be used to account for his curious statement at 1018a7-9: "so it is clear that sameness is a kind of oneness either of the being of several things or (of one thing) when it is treated as several, as when one says that a thing is the same as itself; for one treats it as two" (ὥστε φανερόν ὅτι ἡ ταυτότης ἐνότης τίς ἐστιν ἢ πλειόνων τοῦ εἶναι ἢ ὅταν χρηται ὡς πλείοσιν, οἷον ὅταν λέγῃ αὐτὸ αὐτῷ ταυτον. ὡς δυσι γὰρ χρηται αὐτῷ). To say that *X* is the same as *X* is just to say that *X* is

²² See also the combination at *De Gen. et Corr.* 320b13ff. (. . . ὅλην . . . τὴν αὐτὴν καὶ μίαν ἀριθμῶ, τῷ λόγῳ δὲ μὴ μίαν), and *Cat.* 4a10-11. I would not, however, want to put a great deal of the weight of the argument on such passages.

one with X ; but this is to say that X and X (together) constitute one thing, and this in turn is to treat X as two things going to make up one thing. There is of course no one-place use of "same," or anything else at hand to force on Aristotle the realization that the word may be used in sentences in which only a single thing is referred to. In a similar vein Aristotle in *De Interpretatione* 11 objects to (among others) expressions of the form " XX ," " XXX ," and so on (whether they be in subject or predicate position; 20b31-21a4), treating them as objectionable on the same score as "musical white walking," which on the view of the *De Interpretatione* (which does not here make allowance for things which are accidentally one), designates nothing unitary.²³

If these remarks about the state of Aristotle's thinking in *Metaphysics* V are correct, they go some way toward showing why he is neglecting to give a clear account of the notion of identity. Rather than thinking about what it is for X and Y to be identical, he has his mind fixed on what it is for an entity to be unitary, whether its having elements is compatible with its being unitary, what sort of elements they must be, and how they must be joined together. This discussion drags the treatment of sameness along on its coattails. In the *Topics*, it was different. There Aristotle was relatively unconcerned with the notion of oneness and concentrated his attention instead on sameness. As a result he was able to come up with some fairly straightforward things to say, including his tentative moves toward Leibniz' Law. It is important that in the *Topics* he is relatively (though not, of course, completely) unconcerned with a host of metaphysical problems, particularly about change, which arise out of Plato's Theory of Forms, and is working out his own lines of thought (cf. *Topics* 100a18-21; *SE* 34,

²³ Notice that Aristotle may be violating a stricture of *Top.* 150a20-21 (against identifying a part of a thing with the whole) when in *Met.* V, 9 he allows the musical man, which is a compound of the musical and the man, to be accidentally the same as the musical and as the man.

It should be remarked, by the way, that Aristotle's use of " X and Y are one," " X is one with Y ," and " XY is one" may have a parallel in his use of the verb "to be"; see G.E.L. Owen, "Aristotle on the Snares of Ontology," in Renford Bambrough (ed.), *New Essays on Plato and Aristotle* (New York and London, 1965), pp. 69-96; and Anscombe in G.E.M. Anscombe and P.T. Geach, *Three Philosophers* (Oxford, 1963), pp. 22-23. There is a good deal to be said on this matter, however, and I shall not attempt to attack it here.

esp. 183b34-36, 184b1-8). I now want to suggest how preoccupation with certain Platonic difficulties might have deflected Aristotle from working out the notion of identity more thoroughly and straightforwardly in works other than the *Topics*.

IV

Now to the classical Theory of Forms of Plato's period, in connection with which I shall here deal primarily with problems of identity of objects over time. We wonder what makes (so to speak) the table we saw yesterday identical with the table we see today. I think that it is fairly clear that neither Plato nor Aristotle had any clear notion of time slices, temporal parts of things, or the like (in spite of the analogies drawn in *Physics* IV, 10-14 between motion and time). Still, they dealt with problems which can fruitfully be discussed in these terms. G.E.L. Owen has argued that on the classical Theory of Forms, Plato held that Forms have no temporal careers, because there is nothing true of a Form at one time which is not true of it at every other time.²⁴

In the *Sophist*, however, Plato decided that coming to be known, for example, is a change (in a broad sense) which a Form undergoes, and so his old view had to be given up. With it, Plato had to give up the contention of the *Timaeus* (37e-38a) that we cannot use "was" or "will be" of the Forms, but only of changing sensible objects. I take it that this temporal careerlessness was part of what Plato meant earlier when he said that each Form is one. On the classical theory, the Forms "are," while sensible objects are "between being and not-being."²⁵ But Plato also draws the contrast between being and becoming, and assigns the Forms to the first and sensible objects to the second. This much is common knowledge. He never, though, says very forthrightly what he means by suggesting that the world of sensible objects is a world of becoming. In the *Theaetetus* (181-183) he pillories a

²⁴ "Plato and Parmenides on the Timeless Present," *Monist*, 50 (1966), 317-340, where Owen also argues that Plato was here taking a cue from Parmenides' views about "the One."

²⁵ On Plato's grounds for this claim I agree in large part with what Vlastos has to say in Bambrough (ed.), *op. cit.*, pp. 1-20.

theory under which sensible objects are claimed to be constantly changing in *every* respect: it may be that he is attacking his old theory here, but it is very hard to find a clear statement of such an extreme view in his earlier works.²⁶

When he said that sensible objects "become," what I think Plato meant can be put something like this.²⁷

Sensible objects have continuous careers in time: for any two different points in the career of such a thing, there is a point in between them. This is assured by the fact that every sensible object is continuously changing—not, indeed, in every respect, but in some respect or other. This is represented by Plato's notion of "growing older," on which see *Timaeus* 38a (cf. *Parm.* 141a-d, 152a-e) and Owen (*op. cit.*, pp. 335-336). But a consequence which Plato is willing to draw from this claim of constant change in sensible objects is that there is something problematic about saying that such objects retain their identity over time. His point is that, given an object which, viewed in the *ordinary* way, has a certain career in time with particular boundary points (such as Socrates), one can see on reflection that there is no reason in principle why it *must* be said to begin or leave off at any particular time rather than another. We count Socrates as the same over a period, but we could just as well cut the world differently, along its temporal axis, and provide ourselves with a series of Socrates

²⁶ We are here in the middle of a controversial topic: see Owen, "The Place of the *Timaeus* in Plato's Dialogues," in R.E. Allen (ed.), *Studies in Plato's Metaphysics* (London and New York, 1965), p. 323; and H. Cherniss, "The Relation of the *Timaeus* to Plato's Later Dialogues," *ibid.*, pp. 349-360. I think that Owen is right in this matter, and I shall not attempt to join in the debate here.

²⁷ I am not going to argue here as fully for this claim as one might. My main support for this interpretation is not any explicit statement of Plato's, but rather the fact that if we accept it, we get a clearer picture than we would otherwise have of the motivation for Aristotle's views. Since my primary Platonic evidence for the interpretation comes from relatively late dialogues (such as the *Parmenides* and the *Theaetetus*, in which I take Plato to be re-examining and revising his classical Theory of Forms of the *Republic* and the *Phaedo*), I would be willing to entertain seriously the following view: the interpretation of the classical theory which I offer is not one which can unequivocally be fastened on Plato's classical theory, but rather represents Plato's attempts in his later works to explain more clearly and precisely what he had been trying to get at in his earlier rather impressionistic talk of becoming in the sensible world.

stages down to the smallest thickness we like. There is nothing sacrosanct about the boundaries which we do draw, since the objects are constantly changing in some way or other. Preoccupation with the idea that any kind of change can be taken as tantamount to perishing comes out in several passages of the *Parmenides* (e.g., 155e-156a, 163a-b, e1-2, 146c4-d1 with 145e7-146a8, 138c1-3), and at *Theaetetus* 158e-159c (especially 159b6-10), which I do not have space to explicate in detail here, but which I think contains in part a development of earlier beliefs of Plato's own (cf. n.27). We can make this idea sit well with certain characteristically Platonic ways of talking. He need not be (and probably is not) saying that sensible objects just do not retain their identity over time *at all*, so that, say, the Socrates we see in 401 B.C. flatly is not identical with the Socrates at the trial in 399. Rather, in some ways he is identical and in other ways he is not. Otherwise put, he has changed in some respects but not in others, and this is enough for us to say that he is qualifiedly (but *only* qualifiedly) identical over this period.²⁸ The notion of qualified identity comes clearly at *Theaetetus* 158-159, especially at 158e7-8, 9-10 ("ἐτερον παντάπασιν," "τῇ μὲν ἔτερον, τῇ δὲ ταυτόν," "ὅλως ἔτερον"; cf. *Parm.* 146c8-d1).

V

What is Aristotle's answer to all of this?²⁹ It is not fully elaborated in the works of the *Organon*, but it must come to

²⁸ For parallels to this line of thought see Owen, "A Proof in the *Peri Ideon*," Allen (ed.), *op. cit.*, pp. 298-312. It is worth noting—though the development of this point would require a long story—that in the section of the *Theaetetus* devoted to false belief (187-200), Plato deals with identity claims about spatiotemporal objects in a manner which bears marked similarity to Aristotle's treatment. See J.L. Ackrill, "Plato on False Belief: *Theaetetus* 187-200," *Monist*, 50, 3 (July, 1966), 383-402. Among the points made by Ackrill which are relevant to my discussion, two stand out. First, Plato does not succeed in working out the idea that the very same thing may be referred to by two different expressions. Second, although Plato vindicates the possibility of certain false beliefs about spatiotemporal objects, he does it by avoiding straightforward identity statements in favor of statements of a different sort. As Ackrill puts it (p. 401), ". . . believing that the man I see is the man I saw yesterday is [as Plato views it] believing that this item of experience belongs to one and the same continuant as that item of experience."

²⁹ It is here that we begin to see the advantage claimed in note 27 for my

something like this. For Socrates to remain a man over a stretch of time is for him to remain the same in a particularly important way, more important than the way in which he remains the same if he continues to be musical or just. For him to stop being a man is for him to change in a more important way than he would if he stopped being musical or just. We can see the idea in *Categories* 4a10 ff. where he argues for the view that "What seems to be most distinctive of substance is to be able, while remaining one and the same in number (*ταὐτὸν καὶ ἐν ἀριθμῷ*), to receive contraries." Notice that here the weight of explaining the identity of Socrates over time is put upon his having at a later time the same important attribute which he had at an earlier time. It is, if you like, a kind of similarity between him and himself in respect of substance attribute, a similarity which fails to hold with respect to every attribute since there are ways in which he changes. This is, I think, only part of the story, but it is enough to enable us to see how the notion of identity as it figures in Leibniz' Law could come to have relatively little hold on Aristotle's mind. For if we take up this preoccupation in this way, we can say that Socrates remains the same over time and yet deny that just the same attributes are true of him which used to be. For example, yesterday it was true to say of him that he is in the market place, but today it is not. Or, it is now both true and false of him that he *was* in the market place, since sometimes he was and sometimes he was not. Of course we could cut through this difficulty by making verbs tenseless and including designations of times in our predicates, but as Hintikka has frequently pointed out, Aristotle never seems to take advantage of this device.³⁰

Now obviously something has sneaked in the side door. What is claimed to make Socrates the same over time is that he is a man throughout the period. But being a man is common not only to Socrates early and late; it is also common to Socrates, Plato, Adeimantus, and so on. We do not yet have enough to distinguish

account of Platonic "becoming," which allows us to throw into sharper relief than is sometimes done the departure from Plato's views inherent in Aristotle's contrast between substantial and accidental predication.

³⁰ For example, in "The Once and Future Sea Fight," *Philosophical Review*, LXXIII (1964), 461-492.

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them, if this is all we have for identity and non-identity. Of course, Aristotle wants to say from the beginning that they are different *in number*, and in later works he falls back on the notion of matter to explain this difference.³¹ Here we are at the beginning of a very long story, which I shall not try to tell now. Suffice it to say that there is other evidence for believing that Aristotle is squarely faced with this difficulty, particularly in *Metaphysics* VII.³²

One point can be briefly taken up in passing. The problem of identity over time must concern Aristotle not only for individual sensible objects, but also for universals. In the *Sophist*, Plato had given grounds for saying that Forms change, and Aristotle has to deal with this issue. He can be seen working on it in *Metaphysics* VII, 7-9, and especially clearly at *Physics* 211a21-23 (where he says that whiteness and knowledge can undergo locomotion accidentally, because what they are "in" does so; cf. also 246b 14-15, 247a6-7, and probably 228a6-19). What keeps universals the same, so to speak, is that their definitions stay fixed.

VI

I have used this discussion of identity over time to suggest a reason why Aristotle did not put stock in Leibniz' Law in works other than the *Topics*, and a reason why he does not draw as clear a contrast as he might have between identity and similarity in a certain respect. As for the latter, the point is that the particular worries to which Platonic considerations led him have prompted him to treat a (for him) central sort of identity as simply a special case of similarity in a certain special respect. As for the former, the point is that when he operates in the manner which I have described, *LL* simply seems to fail for particular primary substances. Now let me link up these points with the claim which I made earlier, that Aristotle seems to be unclear about two uses of "*X* and *Y* are one" (and hence "*X* and *Y* are the same"), the one expressing an identity statement and the other asserting that *X* and *Y* go together to make up a unitary thing.

³¹ E.g., at *Met.* 1034a5-8; cf. Anscombe, "The Principle of Individuation," *Proceedings of the Aristotelian Society*, supp. vol. 27 (1953), 83-96.

³² See Owen, "The Platonism of Aristotle," *Proceedings of the British Academy*, LI (1965), 136-137.

I can wonder about whether the eyeglasses I put on today are identical with the ones I put on yesterday, and I can wonder what (so to speak) makes them so if they are so. But I can also wonder whether today's and yesterday's eyeglasses go together to make up a single thing or, say, whether my eating of a part of a sandwich between 3:00 and 3:04 and my finishing that sandwich between 3:15 and 3:17 go to make up a single bout of sandwich-eating. This latter sort of case is discussed by Aristotle in *Physics* V,4, and figures in his attempts to distinguish between *κίνησις* and *ἐνέργεια*.³³ The former type of case is also on his mind. Plainly he is not primarily worried about the possibility that someone stole my old pair of glasses, took them away somewhere (where they now reside), and substituted another pair. Rather he wonders, given that *no* such thing occurred, what makes the pairs of glasses "the same." This can be represented as a worry about the right temporal boundaries to draw in the world. See, for example, *Physics*, IV,11, especially 219b19-23, where Aristotle allows a way in which Coriscus in the Lyceum is different (*ἕτερον*) from Coriscus in the market place (this apropos of the problem of the unity of "the now"). More relevant to my present concern, however, is what Aristotle has to say about continuity in *Metaphysics* V,6, 1016a5-6, along with 1052a19-b1 from *Metaphysics* X,1. In both of these places a thing is said to be one by continuity, by virtue of having "one motion" (*μία κίνησις*), which must mean "a motion which is one or unitary," since Aristotle says that what moves with circular locomotion "is in the primary sense one extended thing" (thus Ross: "τοῦτο πρῶτον μέγεθος ἐν"). As before, Aristotle is not very clear about the distinction between saying that motion *X* and motion *Y* are identical and saying that they are parts of a single motion, and the same problem crops up in *Physics* V,4. But notice that in 1052a22 ff. (esp. 25-26), he maintains that for a thing to be a whole (*ὅλον*) and have a shape and form (*μορφή καὶ εἶδος*), it should have one motion, indivisible in place and time. He is claiming a connection between a thing's having a form and its having a career which is in some sense unitary, which cannot be divided up into any natural parts. The presence of this idea is

³³ See the following section, and Ackrill's paper in Bambrough (ed.), *op. cit.*, pp. 121-142.

not surprising, since Aristotle is often ready to think of the form of a thing, especially a living thing, as its characteristic way of behaving, of going on, *in time*, and not just its “shape” at a given instant. Socrates’ being one over time consists in his continuously going on in an intelligibly uniform way, and today’s Socrates being one with (or, the same as) yesterday’s consists in there being no natural point of division in the interim, nothing to keep the two from going together to make up something one.

VII

The difference, when talking of spatiotemporal objects, between saying that *X* is identical with *Y* and saying that *X* and *Y* go together to make up (or as parts of) a single thing, is to be linked up with another issue. If, pointing toward a table at two different moments, I say, “That (pointing once) is identical with that (pointing again),” then we would usually want to say, if we are taking words at face value, that the references of the two occurrences of “that” were one and the same, the temporally continuing table. If, on the other hand, we say, rather, “That (pointing once) goes together with that (pointing again) to make up one thing (table),” then it is most natural to view each occurrence of “that” as referring to a *different* time slice of the table. The case is clear enough when we have demonstratives.³⁴ It is clear, too, that in analogous cases we might be required similarly to adjust our construal of singular terms other than demonstratives. “Socrates” might thus be used to stand either for the full temporal extent of the man or to some stage or other of him. (This is a somewhat loose manner of speaking, but the looseness is irrelevant to present purposes.)

The point just dealt with, however, is one which Aristotle does not discuss. The reason is no doubt that he does not, as I have said, have the notion of four-dimensional spatiotemporal objects.

³⁴ There is an obvious parallel for space: in the first case think of the reference of both occurrences of “that” as being the whole spatial extent of the table (with time ignored); in the latter, think of each occurrence as referring to a different spatial portion of it. I am deliberately avoiding consideration of Quine’s notion of the inscrutability of reference (see, e.g., his *Word and Object*, ch. II, and “Ontological Relativity,” *Journal of Philosophy*, 65 [1968], 185-212).

He does, I think, make his point sufficiently clear without it, and nothing which I have said seems to me to depend on the supposition that he has it.

In conclusion, I want to point out the relationship between the issues canvassed above and another point of Aristotelian scholarship, and to indicate a further line of investigation. In various places, Aristotle tries to draw a distinction between *energeiai* (one of his favorite examples is seeing) and *kineseis* (e.g., building a temple). In his discussion of this distinction (see n.33), J.L. Ackrill has argued, against Ryle,³⁵ that "it is no part of Aristotle's view of *energeiai* that they cannot go on through time" (p. 126). Ryle had maintained, on the contrary, that Aristotle's *energeia*-words, as opposed to *kinesis*-words, "do not stand for anything that goes on, i.e. has a beginning, a middle and an end" (p. 106). I want to suggest that Aristotle has temptations in both directions. On Ackrill's side, the evidence which he marshals speaks for itself. On the other hand, it does seem to be part of Aristotle's view that, as Ackrill says (pp. 127-128), "there is no upper or lower limit to the time [the *energeia*] may occupy, and. . . it is somehow equally and fully present throughout any such period." J.O. Urmson has suggested that Aristotle's point is that an *energeia* can be viewed as unchanging throughout its duration, in the sense that if we pick the right class of attributes, we shall find that an *energeia* does not change from having any one of these attributes to not having it, or vice versa; a *kinesis*, on the other hand, does change in these relevant respects.³⁶ Thus, an *energeia* can in one way be thought of as having no temporal career, in that if we limit our view to the special class of attributes, we shall not be able to distinguish different points in its career by any difference in it with respect to them. If we broadened our consideration to include other attributes, however, we would be able to distinguish different points and stages of the career of the *energeia*.

³⁵ *Dilemmas* (Cambridge, 1954), pp. 93-110, *passim*.

³⁶ Urmson made this suggestion in conversation; I have revised it somewhat in order to adapt it to my present purposes. Notice that the problem of picking out the special class of relevant attributes is tantamount to the problem of making Aristotle's distinction. I am not here trying to suggest how this might best be done.

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If we accept this suggestion (I do not claim to have proved it), we have an initial grasp of a notoriously difficult piece of Aristotelian doctrine, the view adopted in the central books of the *Metaphysics* that substance (*οὐσία*) is *energeia* (*Met.* IX, 1050b2-3; cf. perhaps 1048b6-9). Aristotle is continuing to hold the view that a substance is something which, in relevant and privileged respects, does not change and thus, he thinks, has unproblematical identity over time. The difference is that at 1050b2-3, Aristotle says that "substance *and form* is *energeia*," thus betraying the new idea (which appears often in the middle—chronologically late—books of the *Metaphysics*) that the only genuine substances are (Aristotelian) Forms.³⁷ These undergo either no temporal change or a sort of change which is in Aristotle's view easily discounted (see the last paragraph of Section V), and thus have their identity over time fixed in the way which Plato tried to provide for his own Forms (cf. Section IV).

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³⁷ See W.D. Ross (ed.), *Aristotle's Metaphysics*, corr. ed. (Oxford, 1953), I, cxi-cxiv; Owen, "The Platonism of Aristotle," p. 137 with n. 1; and M.J. Woods, "Problems in *Metaphysics Z*, Chapter 13," in J.M.E. Moravcsik (ed.), *Aristotle: A Collection of Critical Essays* (New York, 1967), pp. 215-238.